

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

JC971 U.S. PTO  
09/826146  
04/05/01

In re application of )  
 )  
Applicant(s): Lewis et al. )  
 )  
Title: Utilization of Invertebrate ) Group Art Unit:  
Learning for Flexible and )  
Sensitive Monitoring and )  
Identification of Chemicals ) Examiner:  
 )  
Serial No.: Unknown )  
 )  
Docket No.: 0065.00 )  
 )  
Filed: Concurrently herewith )  
 )

DISCLOSURE STATEMENT PURSUANT TO 37 C.F.R. 1.56

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In compliance with 37 C.F.R. 1.56, Applicants herewith submit documents believed to be relevant to the above-identified patent application. The documents are listed on form PTO-1449 attached hereto. A copy of each document is enclosed.

REFERENCES

1. Sudduth, K.A., et al., "Sensors for Site-Specific Management", pp. 183-210. In Perce, F.J., and Sadler, E.J. (Eds.) The State of Site Specific Management for Agriculture. Amer. Soc. Agri. Inc., Madison, WI., 1997.
2. Gould, J.L., "Natural History of Honey Bee Learning", pp. 149-180, Dept. of Biology, Princeton University, Princeton, NJ 08544, USA.
3. Bitterman, M.E., et al., "Classical Conditioning of Proboscis Extension in Honeybees (*Apis mellifera*)", Journal of Comparative Psychology, Vol. 97(2), pp. 107-119, 1983.

4. Turlings, T.C.J., et al., "Learning of Host-Findings Cues by Hymenopterous Parasitoids", pp. 51-78. In Papaj, D.R., and Lewis, A.C. (Eds.), *Insect Learning. Ecological and Evolutionary Perspectives*. Chapman & Hall, New York.
5. Lewis, W.J., et al., "Host Detection by Chemically Mediated Associative Learning in a Parasitic Wasp", Nature, Vol. 331, pp. 257-259, 1988.
6. Menzel, R., et al., "Biology of Invertebrate Learning", In. Marler, P., and Terrace, H.S., (Eds.), *The Biology of Learning*. Springer-Verlag, Berlin, pp. 249-270, 1984.
7. Perez-Maluf, R., et al., "Genetic Variability of Conditioned Probing Responses to a Fruit Odor in *Leptopilina boucardi* (Hymenoptera: Eucoilidae), a *Drosophila* Parasitoid", Behavior Genetics, Vol. 28(1), pp. 67-73, 1998.
8. Brandes, C., et al., "Common Mechanisms in Proboscis Extension Conditioning and Visual Learning Revealed by Genetic Selection in Honeybees (*Aphis mellifera capensis*)", J. Comp. Physiol. A., Vol. 166, pp. 545-552, 1990.
9. Heinrich, B., "Learning in Invertebrates", Dept. of Zoology, University of Vermont, Burlington, VT 05405, USA.
10. Alloway, T.M., "Learning and Memory in Insects", Annu. Rev. Entomol., Vol. 17, pp. 43-56, 1972.
11. Papaj, D.R., et al., "Ecological and Evolutionary aspects of Learning in Phytophagous Insects", Ann. Rev. Entomol., Vol. 34, pp. 315-350, 1989.
12. Tumlinson, J.H., et al., "How Parasitic Wasps Find Their Hosts", Scientific American, pp. 100-106, March, 1993.
13. Lunau, K., et al., "Optical Releasers of the Innate Proboscis Extension in the Hoverfly *Eristalis tenax* L. (Syrphidae, Diptera)", J. Comp. Physiol. A., Vol. 174, pp. 575-579, 1994.
14. Wackers, F.L., "The Effect of Food Deprivation on the Innate Visual and Olfactory Preferences in the Parasitoid *Cotesia rubecula*", J. Insect Physiol., Vol. 40(8), pp. 641-649, 1994.

Docket No. 0065.00

This Disclosure Statement is not to be construed as a representation that (i) a search has been made; (ii) additional information to the examination of this application does not exist; or (iii) the above information constitutes prior art in the subject invention.

Respectfully submitted,

April 4, 2001  
Date

Gail E. Poulos

Gail E. Poulos, Patent Advisor  
Registration No. 36,327  
USDA-ARS-OTT  
5601 Sunnyside Ave., Rm. 4-1159  
Beltsville, Maryland 20705-5131  
301-504-5302 or 504-6558

Enclosures:  
References (14)

cc: w/o encls.  
M. Silverstein  
J. Lewis